REMARKS

By the present amendment, the claims have been amended into a format that Applicant wishes to present for examination. In particular, the claims have been amended in accordance with some of the amendments made during prosecution of the parent application, serial no. 09/403,752 which has now been allowed. No new matter is contained in this amendment and its entry is respectfully requested.

In response to the Restriction Requirement, Applicant elects to proceed with Group II which read on previous claims 15-26 and 38 and now reads upon newly submitted claims 40-58.

The Examiner has asked us to make an additional election and advises that this is not a species election. We respectfully disagree with the Examiner as the further election required should be a species election. Requiring that the claims are limited to a single specific embodiment would place an unfair burden on the Applicant as Applicant would need to file hundreds of applications in order to capture each of the embodiments within the claims. Further, we submit that all of the claims are united by a single inventive concept that can easily be searched without placing an undue burden on the Examiner.

It may be worth pointing out that the nucleic acid claims that issued in the parent application were not required to be restricted to the particular embodiments of the dependent claims. The search that was conducted on the nucleic acid claims in the parent case should be applicable to the present claims to the proteins. We assume the Examiner can refer to the search results in the parent case. Consequently, we respectfully request withdrawal of the requirement to further elect specific elements from the dependent claims.

In order to be fully responsive to the Restriction Requirement, Applicant provisionally elects, with traverse, the (A) the ricin A-chain (from claims 41 and 42) and ricin B-chain (from claims 43 and 44); (B) matrix metalloproteinase (from claim 45); (C) the hepatitis

C virus (from claim 47) and (D) the linker amino acid sequence according to SEQ ID NO:43 (from claim 49).

It appears that there is an error in the Restriction Requirement in the last paragraph on page 4. In that paragraph, the Examiner is further requesting that we elect one linker from claim 3 from which claim 39 depends. As neither claim 3 nor claim 39 were included in recombinant protein claims of Group II, we assume that the Examiner meant to refer to Group I in that paragraph.

The Commissioner is hereby authorized to charge any fee (including any claim fee) which may be required to our Deposit Account No. 02-2095.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version With Markings To Show Changes Made."**

In view of the foregoing amendment, we respectfully submit that the application is in order for allowance and early indication to that effect is respectfully requested. Should the Examiner deem it beneficial to discuss the application in greater detail, he is kindly requested to contact the undersigned by telephone at (416) 364-7311 at his convenience.

Respectfully submitted,

Thor Borgford

M. Gravelle

Micheline Gravelle
Registration No. 40,261

416-364-7311

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 1-39 currently of record have been deleted.

New claims 40-58 have been inserted as follows:

40. (New) A recombinant protein comprising an A chain of a ricin-like toxin, a B chain of a ricin- like toxin and a heterologous linker amino acid sequence, linking the A and B chains, wherein the linker sequence contains a cleavage recognition site for a disease-specific protease selected from the group consisting of: a cancer associated protease, a viral protease, a fungal protease, and a parasitic protease.

41. (New) The recombinant protein of claim 40 wherein the A chain is ricin A chain, abrin toxin A chain, diphtheria toxin A chain, or Domain II/III of Pseudomonas exotoxin.

42. (New) The recombinant protein of claim 40 wherein the A chain is volkensin toxin A chain, cholera toxin A chain, viscumin toxin A chain, modeccin toxin A chain or shiga toxin A chain.

43. (New) The recombinant protein of claim 40 wherein the B chain is ricin B chain, abrin toxin B chain, diphtheria toxin B chain, or Domain I of Pseudomonas exotoxin.

44. (New) The recombinant protein of claim 40 wherein the B chain is volkensin toxin B chain, cholera toxin B chain, viscumin toxin A chain, modeccin toxin B chain or shiga toxin B chain.

45. (New) The recombinant protein of claim 40 wherein the cancer-associated protease is selected from the group consisting of: cathepsin B, an Epstein-Barr virus specific protease, a matrix metalloproteinase, cathepsin L, cathepsin D, urokinase-type

plasminogen activator, tissue-type plasminogen activator, human prostate-specific antigen, kallikrein, neutrophil elastase, and calpain.

46. (New) The recombinant protein of claim 40 wherein the parasitic protease is a Plasmodium falciparum protease.

47. (New) The recombinant protein of claim 40 wherein the viral protease is selected from the group consisting of: human cytomegalovirus, human herpes virus, varicella zoster virus, hepatitis A virus, hepatitis C virus and infectious laryngotracheitis virus.

48. (New) The recombinant protein of claim 40 wherein the fungal protease is a Candida acid protease.

49. (New) The recombinant protein of claim 40 having the linker amino acid sequence according to SEQ ID No. 40; SEQ ID No. 41; SEQ ID No. 42; SEQ ID No. 43; SEQ ID No. 44; SEQ ID No. 45; SEQ ID No. 46; SEQ ID No. 55; SEQ ID No. 56; SEQ ID No. 57; SEQ ID No. 58; SEQ ID No. 59; SEQ ID No. 60; SEQ ID No. 61; SEQ ID No. 62; SEQ ID No. 63; SEQ ID No. 64; SEQ ID No. 65; SEQ ID No. 66; SEQ ID No. 67; SEQ ID No. 68; SEQ ID No. 69; SEQ ID No. 70; SEQ ID No. 71; SEQ ID No. 72; SEQ ID No. 75; SEQ ID No. 78; SEQ ID No. 81; SEQ ID No. 84; SEQ ID No. 87; SEQ ID No. 90; SEQ ID No. 93; SEQ ID No. 96; SEQ ID No. 99; SEQ ID No. 102; SEQ ID No. 105; SEQ ID No. 108; SEQ ID No. 111; SEQ ID No. 114; SEQ ID No. 117; SEQ ID No. 120; SEQ ID No. 123; or SEQ ID No. 126.

50. (New) The recombinant protein of claim 45, wherein the A chain is ricin A chain, the B chain is ricin B chain, and the heterologous linker contains a cleavage recognition site for a matrix metalloproteinase.

51. (New) The recombinant protein of claim 50, wherein the heterologous linker contains a cleavage recognition site for matrix metalloproteinase-9.

52. (New) The recombinant protein of claim 45, wherein the A chain is ricin A chain, the B chain is ricin B chain, and the heterologous linker contains a cleavage recognition site for human prostate-specific antigen.

53. (New) The recombinant protein of claim 47, wherein the A chain is ricin A chain, the B chain is ricin B chain, and the heterologous linker contains a cleavage recognition site for hepatitis C virus.

54. (New) A recombinant protein according to claim 40 comprising a truncated A chain from a ricin-like toxin.

55. (New) A recombinant protein according to claim 54 comprising a truncated A chain of ricin A.

56. (New) A recombinant protein according to claim 40 comprising a truncated B chain from a ricin-like toxin.

57. (New) A recombinant protein according to claim 54 comprising a truncated A chain of ricin B.

58. (New) A pharmaceutical composition for treating cancer or a fungal, or viral, or parasitic infection in an animal comprising the recombinant protein of claim 40 and a pharmaceutically acceptable carrier, diluent or excipient.